

INTEGRATED REFLECTOR AND BOOM

ABSTRACT OF THE DISCLOSURE

An integrated reflector and boom (1) for a deployable space based reflector antenna includes a facesheet (9) of stiff reflective material and a stiff lattice or grid structure bonded to the facesheet in a reflector portion of the assembly and defines a boom to the assembly. The grid structure is formed of ribs (13, 15, 17 & 19) that interlock through slots formed in the ribs, arranged in a symmetric pattern that defines an isogrid structure in the reflector portion and in at least a part of the boom assembly. At least some of the ribs extend in one piece from the reflector portion and into the boom. One of those ribs (13) is located along an axis of symmetry of the grid structure.